

## REMARKS

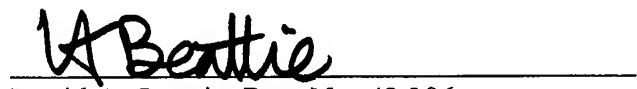
In response to the Restriction Requirement dated April 17, 2006, Applicants elect the invention of Group I, claims 1, 3, and 13-16, drawn to a method of inhibiting osteoclast-mediated bone resorption comprising inhibiting activity of a gene product encoded by an osteoclast-associated gene, and Applicants further elect the osteoclast-associated gene/marker of OC14, disclosed in Figure 1A, without traverse.

Upon entry of the present amendment, claims 1 and 25-33 are pending. Claims 2-24 have been cancelled without prejudice or disclaimer. Applicants reserve the right to prosecute the cancelled subject matter, as well as the originally presented claims, in continuing applications. Claim 1 has been amended and claims 25-33 have been added. Support for the amendments presented herein is found throughout the specification and claims as originally filed. For example, support for the amendments to claim 1 is found at least in Figure 1A, and in publicly available Genbank Accession No. AV251613, which is referred to by name in line 14 of Figure 1A: "C80638 (AV251613 RIKEN full-length enriched, 0 day neonate head Mus musculus cDNA clone 4833432F11 3', mRNA sequence)". A copy of the NCBI Entrez Database Entry for AV251613 is enclosed herewith for the Examiner's convenience. The nucleotide sequence of OC14 (AV251613) has been assigned the next available sequence identifier, *i.e.*, SEQ ID NO:50. Support for new claims 25-26 is found at least in the first paragraph on page 49 of the as-filed specification, while support for new claims 27-33 is found at least in the second paragraph on page 49 of the as-filed specification. Accordingly, no new matter has been added by the claim amendments presented herein.

## CONCLUSION

On the basis of the foregoing amendment and remarks, Applicants respectfully submit, that the pending claims are in condition for allowance. If there are any questions regarding this amendment and/or these remarks, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

  
\_\_\_\_\_  
Ingrid A. Beattie, Reg. No. 42,306  
Attorney for Applicants  
c/o MINTZ, LEVIN, COHN, FERRIS,  
GLOVSKY & POPEO, P.C.  
Tel.: (617) 542 6000  
Fax: (617) 542-2241  
**Customer No. 30623**


[My NCBI](#)  
[\[Sign In\]](#) [\[Register\]](#)

PubMed

Nucleotide

Protein

Genome

Structure

PMC

Taxonomy

OMIM

Books

Search Nucleotide

for

Limits

Preview/Index

History

Clipboard

Details

Display GenBank

5

Range: from begin

to end

 Reverse complemented strandFeatures: 

1: [AV251613. Reports AV251613 RIKEN fu...\[gi:16387654\]](#)

Links

LOCUS AV251613 668 bp mRNA linear EST 24-OCT-2001  
 DEFINITION AV251613 RIKEN full-length enriched, 0 day neonate head Mus musculus cDNA clone 4833432F11 3', mRNA sequence.  
 ACCESSION AV251613  
 VERSION AV251613.2 GI:16387654  
 KEYWORDS EST.  
 SOURCE Mus musculus (house mouse)  
 ORGANISM Mus musculus  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi; Muroidea; Muridae; Murinae; Mus.  
 REFERENCE 1 (bases 1 to 668)  
 AUTHORS Arakawa,T., Carninci,P., Fukuda,S., Furuno,M., Hanagaki,T., Hara,A., Hiramoto,K., Hori,F., Ishii,Y., Ito,M., Kawai,J., Konno,H., Kouda,M., Koya,S., Matsuyama,T., Miyazaki,A., Nomura,K., Ohno,M., Okazaki,Y., Okido,T., Saito,R., Sakai,C., Sakai,K., Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T., Sogabe,Y., Suzuki,H., Tagami,M., Tagawa,A., Takahashi,F., Takeda,Y., Tanaka,T., Toya,T., Muramatsu,M. and Hayashizaki,Y.  
 TITLE RIKEN Mouse ESTs (Arakawa,T., et al. 2001)  
 JOURNAL Unpublished (2001)  
 COMMENT On Nov 4, 1999 this sequence version replaced gi:6239072.  
 Contact: Yoshihide Hayashizaki  
 Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute  
 The Institute of Physical and Chemical Research (RIKEN)  
 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan  
 Tel: 81-45-503-9222  
 Fax: 81-45-503-9216  
 Email: [genome-res@gsc.riken.jp](mailto:genome-res@gsc.riken.jp), URL:<http://genome.gsc.riken.jp/>  
 Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.  
 Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes. *Genome Res.* 10 (10), 1617-1630 (2000)  
 wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y.  
 RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. *Genome Res.* 10 (11), 1757-1771 (2000)  
 Konno,H., Fukunishi,Y., Shibata,K., Itoh,M., Carninci,P., Sugahara,Y. and Hayashizaki,Y.  
 Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. *Genome Res.* 11 (2), 281-289 (2001)  
 Kondo,S., Shinagawa,A., Saito,T., Kiyosawa,H., Yamanaka,I., Aizawa,K., Fukuda,S., Hara,A., Itoh,M., Kawai,J., Shibata,K. and

Hayashizaki, Y.

Computational Analysis of Full-Length Mouse cDNAs Compared with Human Genome Sequences Mamm. Genome. 12, 673-677 (2001)  
Please visit our web site (<http://genome.gsc.riken.go.jp/>) for further details.

cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues.

## FEATURES

### Location/Qualifiers

```
source 1..668
/organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="4833432F11"
/sex="mixed"
/tissue_type="head"
/dev_stage="0 day neonate"
/lab_host="DH10B"
/clone_lib="RIKEN full-length enriched, 0 day neonate
head"
/note="Site_1: SalI; Site_2: BamHI; cDNA library was
prepared and sequenced in Mouse Genome Encyclopedia
Project of Genome Exploration Research Group in Riken
Genomic Sciences Center and Genome Science Laboratory in
RIKEN. Division of Experimental Animal Research in Riken
contributed to prepare mouse tissues. 1st strand cDNA was
primed with a primer [5'
GAGAGAGAGAAGGATCCAAGAGCTTTTTTTTTTVN 3'], cDNA was
prepared by using trehalose thermo-activated reverse
transcriptase and subsequently enriched for full-length by
cap-trapper. cDNA went through one round of normalization
to Rot = 10.0 and subtraction to Rot = 100.0. Second
strand cDNA was prepared with the primer adapter of
sequence [5' GAGAGAGAGATTCTGAGTTAATTAAATCCCCCCCCCCCC
3']. cDNA was cloned into the XhoI and BamHI sites.
Vector: a modified pBluescript KS(+) after bulk excision
from Lambda FLC I."
```

## ORIGIN

1 tggagcagag gttccattg tgtctctcg agcagaaaacg gttggccnt gtgttgcaac  
61 cctcagcatc gcagtgccta tacgaattct gactacattc ctgatggtgt gtttcgctgg  
121 ctttaacata aaggaaaaga tatttatttc ttttgccctgg cttccaaagg ccacggcca  
181 ggctgccatt ggctctgtgg ctctggacac ggcaagatcc cacggagaga agcagctgga  
241 agactatggg atggatgtgc tgacgggtggc atttttggcc atcctcatta cagcaccaat  
301 tggaaaggcta ctgattggtt tgctgggtcc cagggttctt cagaatctg aacatcgaac  
361 cgaagaggag gttcaaggag agacttctgc acacattcag aggaagcctg aggattccat  
421 tacggaaagcc tgatggacca tggatttaccat cccaaacccaa aggtttggc cctccaacaa  
481 ccgggacaac ttacttccc ttgactcg aagaaaactt cccgtggat ttcataagca  
541 aacaaattag aaagctttac gctgctaaca gtacccagg tggatcttc ctcagaaaga  
601 ccggaggaca gttacttca gaaagtgaga gaaagtaatt tggacaaata aaacattcac  
661 qattttgt

11

[Disclaimer](#) | [Write to the Help Desk](#)  
NCBI | NLM | NIH